

Response

Applicant: David C. Collins

Serial No.: 10/820,952

Filed: April 8, 2004

Docket No.: 200400670-1

Title: GENERATING AND DISPLAYING SPATIALLY OFFSET SUB-FRAMES

REMARKS

The following remarks are made in response to the Final Office Action mailed July 14, 2008. Claims 1-30 were rejected. Claims 1-30 remain pending in the application and are presented for reconsideration and allowance.

Double Patenting

Claims 1-30 are provisionally rejected on the ground of nonstatutory double patenting over:

1. Claims 1-29 of co-pending Application No. 10/821,130 in view of Super-Resolution Composition in Multi-Projector Displays” by Jaynes et al. (Jaynes);
2. Claims 1-29 of co-pending Application No. 10/864,125 in view of Jaynes;
3. Claims 1-25 of co-pending Application No. 10/868,638 in view of Jaynes;
4. Claims 1-29 of co-pending Application No. 10/868,719 in view of Jaynes;
5. Claims 1-27 of co-pending Application No. 10/992,926 in view of Jaynes;
6. Claims 1-32 of co-pending Application No. 10/750,591 in view of Jaynes;
7. Claims ???¹ of co-pending Application No. 10/697,605 in view of Jaynes;
8. Claims 1-42 of co-pending Application No. 10/696,888 in view of Jaynes;
9. Claims 1-33 of co-pending Application No. 10/821,135 in view of Jaynes;
10. Claims 1-24 of co-pending Application No. 10/632,042 in view of Jaynes;
11. Claims 1-20 of co-pending Application No. 10/672,544 in view of Jaynes;
12. Claims 1-30 of co-pending Application No. 10/768,621 in view of Jaynes;
13. Claims 1-32 of co-pending Application No. 10/768,215 in view of Jaynes;
14. Claims 1-30 of co-pending Application No. 10/947,762 in view of Jaynes; and

¹ The Office Action does not indicate which claims of co-pending Application No. 10/697,605, other than claim 1, form the basis of this rejection.

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15. Claims 1-26 of co-pending Application No. 10/996,083 in view of Jaynes.

Claims 1-30 are rejected on the ground of nonstatutory double patenting over:

1. Claims 1-33 of U.S. Patent No. 7,030,894 in view of Jaynes;
2. Claims 1-60 of U.S. Patent No. 7,034,811 in view of Jaynes; and
3. Claims 1-37 of U.S. Patent No. 7,109,981 in view of Jaynes.

As noted in the Office Action, none of the claims in the above applications or patents teaches the following features recited in claims 1-30 of the present application.

With regard to claim 1 and dependent claims 2-11, none of the claims in the above applications or patents recites:

generating first and second sub-frames, wherein the first and the second sub-frames comprise a plurality of sub-frame pixel values and a plurality of error values, and wherein at least a first one of the plurality of sub-frame pixel values is calculated using the image data, at least a second one of the plurality of sub-frame pixel values, and at least one of the plurality of error values;

alternating between displaying the first sub-frame, including displaying the first one of the plurality of sub-frame pixel values, in a first position and displaying the second sub-frame, including displaying the second one of the plurality of sub-frame pixel values, in a second position spatially offset from the first position.

With regard to claim 12 and dependent claims 13-19, none of the claims in the above applications or patents recites:

an image processing unit configured to generate first and second sub-frames comprising a plurality of rows of sub-frame pixel values, wherein each of the sub-frame pixel values in each of the plurality of rows is calculated using the image data, at least one sub-frame pixel value from a previous one of the plurality of rows, and at least one error value ...

With regard to claim 20 and dependent claims 21-24, none of the claims in the above applications or patents recites:

means for generating a sub-frame pixel value using the row of history values and error values and the plurality of rows of initial values.

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With regard to claim 25 and dependent claims 26-30, none of the claims in the above applications or patents recites:

generating a first sub-frame pixel value using the image data and the first plurality of initial values, wherein the first sub-frame pixel value comprises a first history value; ...

generating a second sub-frame pixel value using the image data, the second plurality of initial values, the first history value, and the first error value.

The Office Action cites Figure 4 and Equation 7 of Jaynes as a teaching or suggestion of the features of claims 1-30 that are not recited in the claims of the above applications or patents. Figure 4 of Jaynes “depicts the theoretical problem [of Jaynes] to be solved” (paragraph above Figure 4) without illustrating a solution to the problem as recited in claims 1-30. Accordingly, Figure 4 of Jaynes does not teach or suggest the above features of claims 1-30.

Equation 7 teaches away from the invention recited in claims 1-30 by teaching “an iterative algorithm that seeks to minimize the difference between the different components and the image target.” Jaynes paragraph above Figure 7 (emphasis added). The invention of claims 1-30 contemplates a one pass algorithm. For example, claim 1 recites “wherein at least a first one of the plurality of sub-frame pixel values is calculated using the image data, at least a second one of the plurality of sub-frame pixel values, and at least one of the plurality of error values” See also, Specification, p. 53, lines 4-6. Accordingly, Equation 7 of Jaynes also does not teach or suggest the above features of claims 1-30.

Because neither the claims of the above applications or patents nor Figure 4 or Equation 7 of Jaynes teach or suggest all of the features of claims 1-30, Applicants respectfully request the withdrawal of the non-statutory double patenting rejections of claims 1-30 for at least these reasons.

Claim Rejections under 35 U.S.C. § 103

Claims 1-30 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Application Publication Number 2004/0027363 (Allen) in view of “Super-Resolution Composition in Multi-Projector Displays” by Jaynes et al. (“Jaynes”).

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The Examiner indicated that the previously filed Declaration under 37 C.F.R. 1.131 was ineffective to overcome Allen for the following reasons.

1. The affidavit fails to establish which of the claim limitations are satisfied by the evidence.
2. The affidavit fails to establish whether the claimed invention was actually made in an appropriate venue prior to the effective date of Allen.
3. The affidavit fails to establish which of the claim limitations were actually made in an appropriate venue prior to the effective date of Allen.
4. The affidavit fails to establish whether the claimed limitations were tested under actual working conditions or a realistic simulation of working conditions.
5. The affidavit fails to establish whether the testing showed utility beyond a probability of failure.
6. The affidavit fails to establish whether the test results, if successful, were also reproducible.

Applicant is filing herewith a revised Declaration under 37 C.F.R. 1.131 to swear behind Allen as prior art under 35 U.S.C. § 102(a) and overcome the above objections. Applicant respectfully submits that, in view of the revised Declaration, Allen does not qualify as prior art under 35 U.S.C. § 102(a).

With regard to reason 1 above, the revised Declaration establishes which of the claim limitations are satisfied by the evidence in at least statement 8.

With regard to reason 2 above, the revised Declaration establishes that the claimed invention was actually made in an appropriate venue, i.e., the United States, prior to the effective date of Allen in at least statements 2 through 8.

With regard to reason 3 above, the revised Declaration establishes that all of the claim limitations were actually made in an appropriate venue, i.e., the United States, prior to the effective date of Allen in at least 2 through 8.

With regard to reason 4 above, the revised Declaration establishes that the claimed invention was tested under actual working conditions or a realistic simulation of working conditions in at least statements 9 and 10.

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With regard to reason 5 above, the revised Declaration establishes that the testing showed utility beyond a probability of failure in at least statements 9 and 11.

With regard to reason 6 above, the revised Declaration establishes that the test results are reproducible in at least statements 9 and 12.

Because Allen and the present application were, at the time the invention of the present application was made, owned by or subject to an obligation of assignment to Hewlett-Packard Development Company, L.P. as previously established,² Applicant respectfully submits that, under 35 U.S.C. §103(c), Allen also does not qualify as prior art under 35 U.S.C. § 102(e) for purposes of 35 U.S.C. §103(a).

Accordingly, Applicants respectfully request withdrawal of the rejections to claims 1-30 under 35 U.S.C. § 103(a).

² See Response to Office Action filed on May 29, 2008.

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CONCLUSION

In view of the above, Applicant respectfully submits that pending claims 1-30 are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 1-30 is respectfully requested.

No fees are required under 37 C.F.R. 1.16(h)(i). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 08-2025.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application. Any inquiry regarding this Response should be directed to either Roger Greer at Telephone No. (312) 360-0080 or Christopher P. Kosh at Telephone No. (512) 241-2403, Facsimile No. (512) 241-2409. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

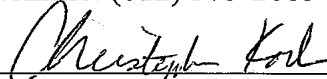
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By,

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